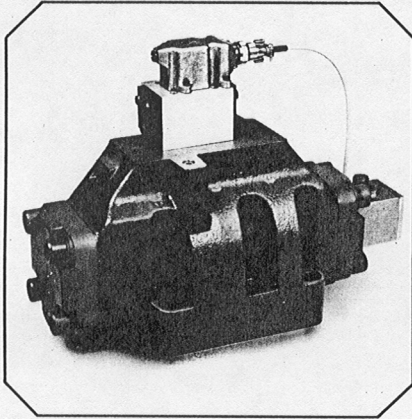


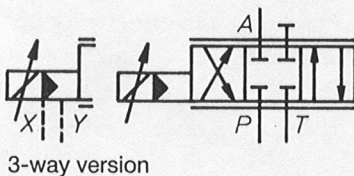
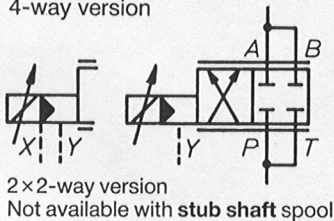
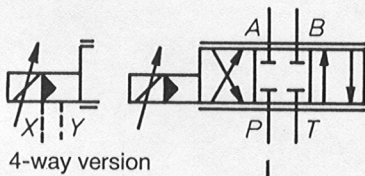


Proportional Control Valves with Integrated Electronics

Series D645

Rated flow 1500 (1300) l/min ($\Delta p_N = 10$ bar)
Operating pressure up to 350 bar

Mounting pattern to DIN 24340
Form A 32 (ISO 4401-AF-10-4-A)



Port size
Valve body design
Rated flow ($\pm 10\%$)
 at 10 bar valve pressure drop [l/min]

Valve version:
Spool configuration

Pilot valve:
Main spool stroke
Main spool drive area
Response time
 for 0 to 100 % stroke*
Threshold*
Hysteresis*
Null shift for $\Delta T = 55^\circ \text{C}$ [%]
Null flow* max.
 (axis cut version)
Pilot valve oil flow
 at 100 % step input*
Mass

[mm] dia 50
 5 chamber version

	1500 P $\blacktriangleright$ B $\blacktriangleright$ A $\blacktriangleright$ T 1300 P $\blacktriangleright$ A $\blacktriangleright$ B $\blacktriangleright$ T 3-stage Standard	1500 P $\blacktriangleright$ B $\blacktriangleright$ A $\blacktriangleright$ T 1300 P $\blacktriangleright$ A $\blacktriangleright$ B $\blacktriangleright$ T 3-stage Standard	1500 P $\blacktriangleright$ B $\blacktriangleright$ A $\blacktriangleright$ T 1300 P $\blacktriangleright$ A $\blacktriangleright$ B $\blacktriangleright$ T 3-stage with stub shafts D076
[mm]	D631-3	D076	D076
[mm]	± 8	± 8	± 8
[cm ²]	33.2	33.2	9.6
[ms]	35	30	18
[%]	< 0.3	< 0.4	< 0.3
[%]	< 1	< 1	< 1
[%]	< 2	< 2	< 2
[l/min]	7	7	7
[l/min]	55	55	33
[kg]	70	69.5	69.5

*For 140 bar pilot pressure or operating pressure

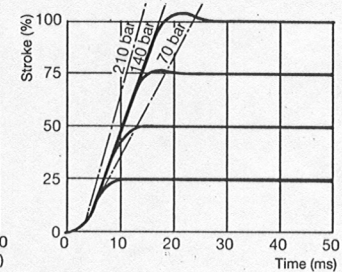
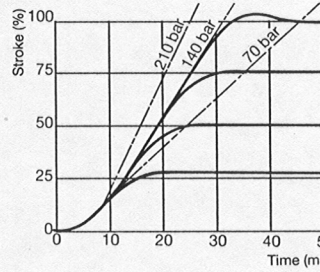
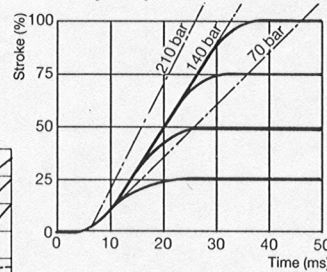
Typical characteristics

with pilot valve D631

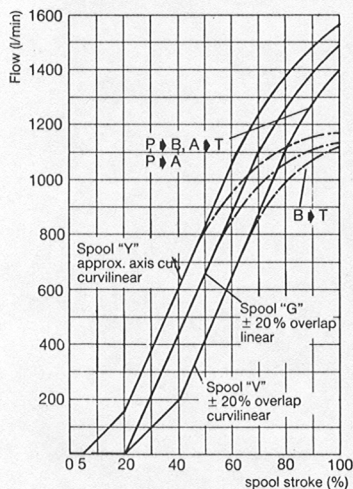
with pilot valve D076

with pilot valve D076
 and stub shafts

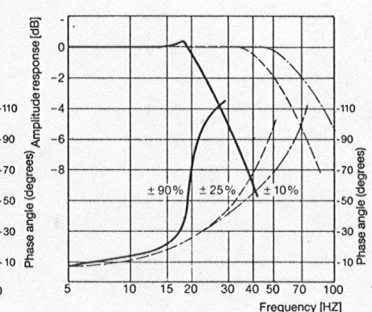
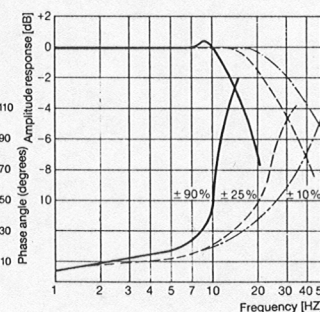
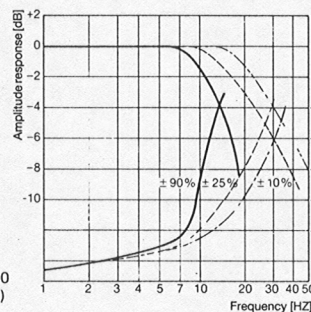
Step response



Flow characteristic at $\Delta p = 5$ bar per metering land



Frequency Response at 140 bar pilot pressure or operating pressure.



Dimensions

Electrical connector
76197-004
(not included
at delivery)

Name plate

Version with
Series D076
Pilot valve

Series D061
Pilot valve

Electrical null adjustment:
Flow will increase out of
port A, when potentiometer
turned in clockwise direction
(4 turn potentiometer
under screw plug)

O-rings included
at delivery
4 × 45122-035
3 × 45122-008

6 mounting bolts M 20 × 85
DIN 912-10.9,
tightening torque 520 Nm
(not included at delivery)

Mounting manifold A25856-001

dimensions to DIN 24340

Form A 32, port NG 40

(up to max. 1400 l/min).

Mounting surface flat within 0.02 mm,
surface finish value Ra better than 1 µm

If pilot ports (X, Y) are not used, they
must be plugged in mounting manifold

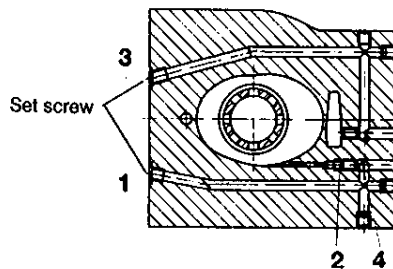
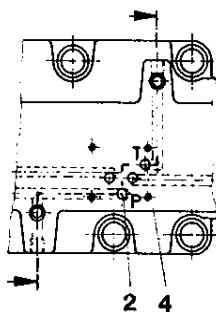
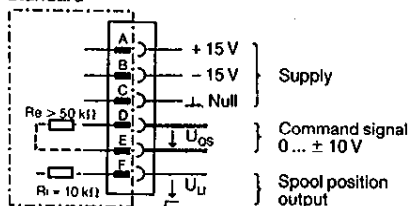
Section C-C

Conversion instructions for main stage

The supply and return connections
to the pilot valve may be either internally
or externally connected as follows:

Electrical connection

Valves with voltage command
Standard



Set screw 1/16 NPTF (remove and install
with magnetic hexagon socket wrench)

Pilot supply via	Setscrew location		Pilot return via	Setscrew location	
	1	2		3	4
internal P	closed	open	internal T	closed	open
external X	open	closed	external Y	open	closed

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